UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,592	11/14/2003	James G. Shanahan	940630-010023	2005

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Blaney Harper
Jones Day
51 Louisiana Avenue, NW
Washington, DC 20001-2113

EXAMINER
LOVEL, KIMBERLY M

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/713,592	SHANAHAN ET AL.
	Examiner	Art Unit	
	Kimberly Lovel	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>19 July 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-8,16 and 17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-8 and 16-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to the Amendment filed 19 July 2007.

2.   Claims 1-8 and 16-17 are pending in this application. In the Amendment filed 19 July 2007, claims 9-15 and 18-23 were canceled. This action is made Non-Final.

3.   The rejections of claims 1-8, 16 and 17 as being anticipated by US PGPub 2004/0039786 to Horvitz et al have been withdrawn as necessitated by Applicants' arguments.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 1-8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2006/0089924 to Raskutti et al (hereafter Raskutti) in view of US Patent No 5,867,799 to Lang et al (hereafter Lang).**

Referring to claim 1, Raskutti discloses a computer-implemented process for generating a filter for selecting documents, comprising:

Identifying [creates] a plurality of profiles [cluster description] from a set of training documents [documents 20] (see [0057], lines 3-7);

creating a sub-filter [generating a filter] for each of said plurality of profiles, each of said sub-filters having an input and an output (see [0072]),

wherein creating each sub-filter comprises the steps of

selecting a first subset [TrainFilters documents] and a second subset [TestFilters documents] from a set of training documents (see [0098] and [0099]),

extracting a set of features [feature extraction] from the first subset (see [0059], lines 9-19 and [0073]), and

calculating a score threshold [numerical score] for the set of features from the second subset (see [0075]).

Raskutti fails to explicitly disclose the further limitations of connecting each of said inputs at a single node, combining each of said outputs to thereby form said filter for selecting documents and storing said filter for selecting documents in a computer readable medium, said filter for selecting documents being accessible by computer readable program code for filtering and selecting documents. Lang discloses using profiles in order to classify data (see abstract), including the further limitations of

connecting each of said inputs at a single node (see column 6, line 66 – column 7, line 13);

combining each of said outputs to thereby form said filter for selecting documents (see column 6, line 66 – column 7, line 13); and

storing said filter for selecting documents in a computer readable medium, said filter for selecting documents being accessible by computer readable program code for filtering and selecting documents (see column 16, lines 31-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the step of combining the outputs from the plurality of levels of filters

as disclosed by Lang with the multiple filters of Raskutti. One would have been motivated to do so in order to increase the accuracy of the documents being correctly classified.

Referring to claim 2, the combination of Raskutti and Lang (hereafter Raskutti/Lang) discloses a computer-implemented process, as in claim 1, further comprising:-multiplexing said outputs of said sub-filters to create a first filter output (Lang: see column 14, lines 3-12).

Referring to claim 3, Raskutti/Lang discloses a computer-implemented process, as in claim 2, further comprising: combining said first filter output with at least one sub-filter output to create at least one second filter output (Lang: see column 14, lines 3-12).

Referring to claim 4, Raskutti/Lang discloses a computer-implemented process, as in claim 3, further comprising: aggregating said first filter output and said second filter output using a function (Lang: see column 14, lines 3-12).

Referring to claim 5, Raskutti/Lang discloses a computer-implemented process, as in claim 4, wherein said function is a linear function (Lang: see column 25, lines 28 – column 26, line 64).

Referring to claim 6, Raskutti/Lang discloses a computer-implemented process, as in claim 4, wherein said function is a weighted function (Lang: see column 25, lines 28 – column 26, line 64).

Referring to claim 7, Raskutti/Lang discloses a computer-implemented process, as in claim 4, wherein said function is a aggregation function (Lang: see column 25, lines 28 – column 26, line 64).

Referring to claim 8, Raskutti discloses a computer-implemented process for

generating an ensemble filter for selecting documents, comprising:

identifying a plurality of sets of documents from a set of training documents (see

[0098] and [0099]);

identifying [creates] a plurality of profiles [cluster description] from a set of

training documents [documents 20] (see [0057], lines 3-7);

creating a plurality of sub-filters [generating a filter] for said plurality of profiles;

(see [0072]),

wherein creating each sub-filter comprises the steps of

selecting a first subset [TrainFilters documents] and a second subset

[TestFilters documents] from a set of training documents (see [0098] and [0099]),

extracting a set of features [feature extraction] from the first subset (see

[0059], lines 9-19 and [0073]), and

calculating a score threshold [numerical score] for the set of features from

the second subset (see [0075]).

Raskutti fails to explicitly disclose the further limitations of combining a first

one of said plurality of sub-filters with a second one of plurality of sub-filters to thereby

create an ensemble filter and storing said filter for selecting documents in a computer

readable medium, said filter for selecting documents being accessible by computer

readable program code for filtering and selecting documents. Lang discloses using

profiles in order to classify data (see abstract), including the further limitations of

combining a first one of said plurality of sub-filters with a second one of plurality of sub-filters to thereby create an ensemble filter (see column 6, line 66 – column 7, line 13); and

storing said filter for selecting documents in a computer readable medium, said filter for selecting documents being accessible by computer readable program code for filtering and selecting documents (see column 16, lines 31-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the step of combining the outputs from the plurality of levels of filters as disclosed by Lang with the multiple filters of Raskutti. One would have been motivated to do so in order to increase the accuracy of the documents being correctly classified.

Referring to claim 16, Raskutti/Lang discloses a computer-implemented process, as in claim 8, wherein the document source is a database of documents (Raskutti: see [0059]).

Referring to claim 17, Raskutti/Lang discloses a computer-implemented process, as in claim 8, wherein the document source is a stream of documents (Lang: see column 6, lines 66 – column 7, line 10).

Response to Amendment

6.   Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel
Examiner
Art Unit 2167

8 October 2007
kml

JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100